## TITLE of the INVENTION

"Digital filtering methods and devices "

## **TEXT of the ABSTRACT**

In order to transform an input digital signal  $(x_n)$  into one or more output digital signals  $(y_n)$  containing even-indexed samples  $(y_{2n})$  and odd-indexed samples  $(y_{2i+n})$ , this filtering method includes at least one iteration (506) which contains an operation of modifying even-indexed samples  $(y_{2n})$  by a function (R) of weighted odd-indexed samples  $(\alpha_{0,j}.y_{2n+m_j})$  and an operation of modifying odd-indexed samples  $(y_{2n+1})$  by means of a function (R) of weighted even-indexed samples  $(\beta_{0,j}.(y_{2n}-y_{2n+2}))$ . The weighted samples are obtained by means of at least one weighting operation. At least one of the weighting operations is applied to the difference between two consecutive even-indexed samples.

Application to the processing of images.

Figure 5.